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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/518,960	LIEBL ET AL.
Office Action Summary	Examiner	Art Unit	
	Joseph D. Torres	2112	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 July 2008</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>37-76</u> is/are pending in the application.

    4a) Of the above claim(s) <u>37-55 and 75</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>56-74, and 76</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>20 December 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☒ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail. Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 08-06)   **Office Action Summary**   Part of Paper No./Mail Date 20080925

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group II, Claims 56-74 and 76 in the reply filed on 07/29/2008 is acknowledged. The traversal is on the ground(s) that "The present application is directed to a coding scheme of digital data. As generally known in the art of coding, a digital encoder is used to digitally encrypt data whereas a decoder is used to decode the encoded data. thus, the functionality of a decoder is generally a reverse function". This is not found persuasive because nowhere does the Applicant claim any decoding or encoding operation in claims 37 and 56. The Applicant only claims abstract algorithms for storing abstract data elements while receiving and transmitting. Even if a receiver uses an abstract algorithms for storing abstract data elements while receiving, that in and of itself does not require or suggest the a corresponding transmitter use an equally abstract algorithms for storing abstract data and vice a versa. The Applicant also suggests both "Most importantly, the Examiner will have no problem in searching for prior art" and "Applicant further performed a quick search in the USPTO data base for patent issued by the USPTO in which the terms "encoding" and "decoding" were used in the claims. This search returned over 10,000 hits". The Examiner suggests that the Applicant search through said "over 10,000 hits" and to see if the Applicant still believes that there is not undue burden.

The requirement is still deemed proper and is therefore made FINAL.

This application contains claims 37-55 and 75 drawn to an invention nonelected with traverse in the reply filed on 07/29/2008. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Response to Arguments

Applicant's arguments with respect to claims 56-74 and 76 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

Claims 57-59, 61-64, 67-68 and 72-74 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 57-59, 61-64, 67-68 and 72-74 fail to recite any limitation in the form of a step/action further limiting the method for decoding of claim 56.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 56-74 and 76 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap

between the steps. See MPEP § 2172.01. Claim 56 recites, a "method for decoding" in

the preamble yet the body of claim 56 fails to recite any step connecting the abstract

algorithms for storing abstract data elements while receiving recited in the body of claim

56 to decoding.

Claim 76 recites, a "computer readable media storing software instructions to

decode" in the preamble yet the body of claim 56 fails to recite any step connecting the

abstract algorithms for storing abstract data elements while receiving recited in the body

of claim 76 to decoding.

Claims 57-59, 61-64, 67-68 and 72-74 fail to recite any limitation in the form of a

step/action further limiting the method for decoding of claim 56.

Claim 76 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

Claim 76 recites, a "computer readable media storing software instructions to

decode" in the preamble.   Signals, hardware storage devices and air space are

examples of media. It is not clear whether the Applicant is claiming an apparatus or

some other non-statutory category of invention. Note: there are only four statutory

categories of invention: process, machine, manufacture, or composition of matter. The

Examiner assumes the Applicant intended apparatus.

Claim 76 is rejected under 35 U.S.C. 112, second paragraph, as being

incomplete for omitting essential elements, such omission amounting to a gap between

the elements. See MPEP § 2172.01. Claim 76 recites, a "computer readable media

storing software instructions to decode" in the preamble, but fails to recite any limitation

that that can be construed as an element of a computer readable media further limiting

the computer readable media.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
conditions and requirements of this title.

Claim 76 is rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter. Claim 76 recites, a "computer readable media

storing software instructions to decode" in the preamble. Signals, hardware storage

devices and air space are examples of media. It is not clear whether the Applicant is

claiming an apparatus or some other non-statutory category of invention. Signals and

Airspace is non-statutory.

Claims 56-74 and 76 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter. Claims 56-74 and 76 are directed

to an abstract algorithm for storing abstract data elements.

The courts have held that a claim may not preempt< ideas, laws of nature or natural

phenomena. The concern over preemption was expressed as early as 1852. See Le

Roy v. Tatham, 55 U.S. 156, 175 (1852) ("A principle, in the abstract, is a fundamental

truth; an original cause; a motive; these cannot be patented, as no one can claim in

either of them an exclusive right."); Funk Brothers Seed Co. v. Kalo Inoculant Co., 333

U.S. 127, 132, 76 USPQ 280, 282 (1948) (combination of six species of bacteria held to

be nonstatutory subject matter).

**>Accordingly, one may not patent every "substantial practical application" of an idea,

law of nature or natural phenomena because such a patent would "in practical effect be

a patent on the [idea, law of nature or natural phenomena] itself." Gottschalk v. Benson,

409 U.S. 63, 71-72, 175 USPQ 673, 676 (1972).

Simply put, claims that describe features in the Applicant's specification at the Abstract

level without any regard to function or utility are nonstatutory.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in Graham **v.** John Deere Co., 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4.   Considering objective evidence present in the application indicating
         obviousness or nonobviousness.

Claims 56-74 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable

over the Schuster; Guido M. et al. (US 6175871 B1, hereafter referred to as Schuster) in

view of AVD-2060 document (AVD-2060, Generic erasure protection with in-band

signaling of protection profiles [enhanced APC-1992], March 5 - 9, 2001, pages 1-17)

[hereafter referred to as AVD-2060] and Schulzrinne et al. (H. Schulzrinne, S. Casner,

R. Frederick, V. Jacobson, RTP: A Transport Protocol for Real-Time Applications,

January 1996, pages 1-75) [hereafter referred to as Schulzrinne]. Note: Schulzrinne is

used strictly as a teaching reference for the RTP protocol.

Claims 56-, are rejected under 35 U.S.C. 103(a) as being unpatentable over the

AVD-2060 document (AVD-2060, Generic erasure protection with in-band signaling of

protection profiles [enhanced APC-1992], March 5 - 9, 2001, pages 1-17) [hereafter

referred to as AVD-2060] in view of Schuster; Guido M. et al. (US 6175871 B1,

hereafter referred to as Schuster) and Schulzrinne et al. (H. Schulzrinne, S. Casner, R.

Frederick, V. Jacobson, RTP: A Transport Protocol for Real-Time Applications, January

1996, pages 1-75) [hereafter referred to as Schulzrinne]. Note: Schulzrinne is used

strictly as a teaching reference for the RTP protocol.

Note that the AVD-2060 document and Schuster are analogous arts for RTP

protocol packet units.

35 U.S.C. 103(a) rejection of claims 56 and 76.

Schuster teaches receiving a first data packet at a first time (col. 9, lines 28-46 in

Schuster teaches receiving 1st, 2nd, 3rd and 4th packets in Figure 4 at different times);

receiving a second data packet at a second time, the second time being subsequent to

the first time (col. 9, lines 28-46 in Schuster teaches receiving 1st, 2nd, 3rd and 4th

packets in Figure 4 at different times); receiving a third data packet at a third time, the

third time being subsequent to the second time (col. 9, lines 28-46 in Schuster teaches

receiving 1st, 2nd, 3rd and 4th packets in Figure 4 at different times); receiving a fourth

data packet at a fourth time, the fourth time being one of subsequent to the third time

and prior to the first time (col. 9, lines 28-46 in Schuster teaches receiving 1st, 2nd, 3rd

and 4th packets in Figure 4 at different times); storing the first data packet, the first data

packet including a first sequential number and **a first block identifier** (col. 9, lines 28-

46 in Schuster teaches stroing 1st, 2nd, 3rd and 4th packets in Figure 4 in correct

sequential order regardless of the order in which the packets arrived; Note: Figure 4 in

Schuster teaches that the first sequential number n is a block identifier); storing the

second data packet, the second data packet including a second sequential number (col.

9, lines 28-46 in Schuster teaches stroing 1st, 2nd, 3rd and 4th packets in Figure 4 in

correct sequential order regardless of the order in which the packets arrived); storing

the third data packet, the third data packet including a third sequential number (col. 9,

lines 28-46 in Schuster teaches stroing 1st, 2nd, 3rd and 4th packets in Figure 4 in correct

sequential order regardless of the order in which the packets arrived); and storing the

fourth data packet, the fourth data packet including a fourth sequential number and

(col. 9, lines 28-46 in Schuster teaches stroing 1st, 2nd, 3rd and 4th packets in Figure 4 in

correct sequential order regardless of the order in which the packets arrived), wherein a

data block corresponds to a portion of the sequence of digital data, the data block

including the first data packet, the second data packet, the third data packet, and the

fourth data packet (the Abstract and Figure 4 in Schuster teaches a data block/frame

corresponds to a portion of the sequence of digital data, the data block including the first

data packet, the second data packet, the third data packet, and the fourth data packet).

However Schuster does not explicitly teach the specific use of the second data packet,

the second data packet including **a block width**; the third data packet, the third data

packet including **a second block identifier**; and the fourth data packet, the fourth data

packet including **the block width**.

AVD-2060 clearly suggests receiving a first data packet at a first time; receiving a

second data packet at a second time, the second time being subsequent to the first

time; receiving a third data packet at a third time, the third time being subsequent to the

second time; receiving a fourth data packet at a fourth time, the fourth time being one of

subsequent to the third time and prior to the first time (AVD-2060 is a communication

protocol which clearly suggests a receiver for receiving transmitted packets).

In addition, AVD-2060 explicitly teaches a first data packet (Figures 2 and 4 in AVD-

2060 teaches 1st, 2nd, 3rd and 4th packets), the first data packet including a first

sequential number (Section 6 on page 12 of AVD-2060 clearly suggests that each RTP

packet has an RTP sequence number) and **a first block identifier** (Section 6.1 on page

12 of AVD-2060 teaches that the time stamps TS is a block identifier); a second data

packet (Figures 2 and 4 in AVD-2060 teaches 1st, 2nd, 3rd and 4th packets), the second

data packet including a second sequential number (Section 6 on page 12 of AVD-2060 clearly suggests that each RTP packet has an RTP sequence number) and **a block width** (block length n in Section 6.2 on page 12 of AVD-2060); a third data packet (Figures 2 and 4 in AVD-2060 teaches 1st, 2nd, 3rd and 4th packets), the third data packet including a third sequential number (Section 6 on page 12 of AVD-2060 clearly suggests that each RTP packet has an RTP sequence number) and **a second block identifier** (Section 6.1 on page 12 of AVD-2060 teaches that the time stamps TS is a block identifier); and a fourth data packet (Figures 2 and 4 in AVD-2060 teaches 1st, 2nd, 3rd and 4th packets), the fourth data packet including a fourth sequential number (Section 6 on page 12 of AVD-2060 clearly suggests that each RTP packet has an RTP sequence number) and **the block width** (block length n in Section 6.2 on page 12 of AVD-2060), wherein a data block corresponds to a portion of the sequence of digital data, the data block including the first data packet, the second data packet, the third data packet, and the fourth data packet (Section 5 in AVD-2060 teaches that a data transmission block TB corresponds to a portion of the message sequence of digital data, the data transmission block TB including the first data packet, the second data packet, the third data packet, and the fourth data packet).

However AVD-2060 does not explicitly teach the specific use of **storing** the first data packet; **storing** the second data packet; **storing** the third data packet; and **storing** the fourth data packet.

Note: AVD-2060 provides the missing data structure elements in Schuster: **block identifiers** and **block width** packet fields. Schuster provides the missing data structure

elements in AVD-2060: a buffer in the receiver for storing RTP packets. AVD-2060

provides motivation for combining: flexible erasure resilient transmission (Abstract in

AVD-2060). Schuster provides motivation for combining: structuring data to enable

information gathering for an adaptive system such as the UXP adaptive system in AVD-

2060 (col. 2, lines 37-43 in Schuster).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine Schuster with the teachings of AVD-2060 by including

the missing elements in the respective Prior Arts. This modification would have been

obvious to one of ordinary skill in the art, at the time the invention was made, because

one of ordinary skill in the art would have recognized that including the missing

elements in the respective Prior Arts would have provided flexible erasure resilient

transmission (Abstract in AVD-2060) and information gathering for an adaptive system

such as the UXP adaptive system in AVD-2060 (col. 2, lines 37-43 in Schuster).

35 U.S.C. 103(a) rejection of claims 57-59, 61-64, 67-68 and 72-74.

Claims 57-59, 61-64, 67-68 and 72-74 fail to recite any limitation in the form of a

step/action further limiting the method for decoding of claim 56, hence are rejected for

the same reasons as claim 56.

35 U.S.C. 103(a) rejection of claim 57.

Note: section 5.1 of Schulzrinne teaches that a sequence number in the RTP header is

a number that **progressively** increments by 1 in the order that the RTP packets are

transmitted. The sequence number is a clear indication of the position of the RTP

packet in the transmission block.

35 U.S.C. 103(a) rejection of claim 58.

Section 4.1 on page 7 in AVD-2060.

35 U.S.C. 103(a) rejection of claim 59.

Section 3 on page 6 in AVD-2060.

35 U.S.C. 103(a) rejection of claim 60.

Note: section 5.1 of Schulzrinne teaches that a sequence number in the RTP header is

a number that **progressively** increments by 1 in the order that the RTP packets are

transmitted. The sequence number is a clear indication of the position of the RTP

packet in the transmission block.

Section 4.1 on page 7 in AVD-2060 teaches that synchronization is achieved at the

frame and group level, which clearly indicates once synchronization is achieved, the

only mechanism fro detection start and end of a block is the sequence number/packet

identifier.

35 U.S.C. 103(a) rejection of claim 61.

Section 6.1 on page 12 of AVD-2060 teaches that the time stamp TS is a block identifier

and that every RTP packet has a time stamp TS block identifier.

35 U.S.C. 103(a) rejection of claim 62.

Block length n in Section 6.2 on page 12 of AVD-2060 is included in each RTP packet.

35 U.S.C. 103(a) rejection of claim 63.

Figures 2 and 4 in AVD-2060.

35 U.S.C. 103(a) rejection of claim 64.

1.28 on page 4 of AVD-2060.

35 U.S.C. 103(a) rejection of claim 65.

Section 6.1 in page 12 of AVD-2060 teaches the use of a time stamp TS to distinguish a
sequence of Transmission Blocks since the TS is the same for each RTP packet in a
particular transmission block in a sequence of Transmission Blocks.

35 U.S.C. 103(a) rejection of claim 66.

Section 6.1 in page 12 of AVD-2060 teaches the use of a time stamp TS to distinguish a
sequence of Transmission Blocks since the TS is the same for each RTP packet in a
particular transmission block in a sequence of Transmission Blocks. Section 6.1 in
page 12 of AVD-2060 teaches the use of a time stamp TS eliminates the confusion in
repeating RTP sequence numbers since the RTP sequence number along with the
Time Stamp determines the transmission block data.

35 U.S.C. 103(a) rejection of claim 67.

Section 6.1 in page 12 of AVD-2060.

35 U.S.C. 103(a) rejection of claim 68.

Figure 4 in Schuster teaches that the first sequential number n is a block identifier.

35 U.S.C. 103(a) rejection of claim 69.

Figure 4 in Schuster teaches that the first sequential number n is a block identifier.

35 U.S.C. 103(a) rejection of claim 70.

Section 5 in page 8 and Section 1.17 on page 3 of AVD-2060.

35 U.S.C. 103(a) rejection of claim 71.

Section 5 in page 8 and Section 1.17 on page 3 of AVD-2060.

35 U.S.C. 103(a) rejection of claim 72.

Section 6.1 on page 12 of AVD-2060 teaches that the time stamps TS is a block

identifier for each RTP packet.

35 U.S.C. 103(a) rejection of claim 73.

Figure 4 in Schuster teaches that the first sequential number n is a block identifier.

n+2 in the 3rd packet is substantially a second block identifier.

35 U.S.C. 103(a) rejection of claim 74.

Section 6.1 on page 12 of AVD-2060 teaches that the time stamps TS is a block

identifier for each RTP packet different from the first sequential number.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Joseph D. Torres whose telephone number is (571)

272-3829. The examiner can normally be reached on M-F 8-5.

   If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jacques Louis-Jacques can be reached on (571) 272-6962. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

                                   Joseph D. Torres
                                   Primary Examiner
                                   Art Unit 2112

/Joseph D. Torres/
Primary Examiner, Art Unit 2112